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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,904	01/20/2005	Jann Blonfi	2002PI1788WOUS	7117

7590 03/16/2007  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
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CASAREGOLA, LOUIS J

ART UNIT	PAPER NUMBER
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3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/521,904

Applicant(s)

BLONN ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-18, 20-21, 24-28, 31-34 is/are pending in the application.
- 4a) Of the above claim(s) 32, 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18, 20-21, 24-27, 31, 33 is/are rejected.
- 7) ☒ Claim(s) 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

### ***Election***

This case includes a species election requirement, and as indicated in the previous office action, applicants have elected the species of Figure 3. Applicants have now canceled the original claims drawn to the various non-elected species, but they have also added new claims 31-34. Two of these new claims, claims 32 and 34, recite a "kettle boiler". This element is not present in the elected Figure 3 species and appears to be exclusive to the non-elected Figure 6 species. Claims 32 and 34 are consequently withdrawn from consideration as directed to a non-elected species, and a further action on the merits of the remaining claims is presented below.

### ***Objections To Claims***

Claims 16, 17, 20, 21, 24, 25, 27 and 28 are objected to under 37 CFR 1.75(a) for improper use of claim terminology.

As pointed out in the previous office action, the gas flow in line 23 is a fuel or combustible gas flow, but the above listed claims still erroneously refer to the flow in line 23 as a "combustion gas flow" -- see claim 16, line 13; claim 17, line 2; claim 20, line 3; claim 21, line 3; claim 24, line 8; claim 25, line 2; claim 27, line 2; and claim 28, line 2.

***Claim Rejections - 35 USC 112***

Claims 16-18, 20, 21 and 31 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 16 and related dependent claims have been amended to recite "a further heat exchanger connected in parallel with the heat exchanger system" (claim 16, line 11). As shown in the preferred embodiment of Figure 3, the heat exchanger system corresponds to the system comprising heat exchangers 22 and 33, and the further heat exchanger corresponds to element 36. Contrary to what the claims now state, however, further heat exchanger 36 is not in parallel with heat exchangers 22 and/or 33. A bona fide parallel arrangement would require the air flow in line 17 to be split or divided between the heat exchanger system (elements 22 and 33) and further heat exchanger 36. The arrangement shown in Figure 3 however includes no such split or divided air flow. The claim language in question thus appears to conflict with what is shown in the preferred embodiment, which raises the question of whether applicants have properly claimed the subject matter they consider to be their invention.

***Claim Rejections - 35 USC 102***

Claims 16-18, 20, 24-27, 31 and 33 are rejected under 35 USC 102(b) as being anticipated by Fujioka et al.

All features of the claimed gas turbine cooling system and method are present in prior art turbine systems of the type disclosed by Fujioka. Attention is called to Fujioka's Figure 3; note that the bottom portion of the figure shows the center and rear sections of a turbine engine including the downstream end of a compressor housing, a combustor, and a turbine (all unnumbered). Note also that a compressed air extraction line (central arrow loop) supplies air to the primary side of heat exchange unit 21. This air transfers heat to a fuel (left arrow loop) before serving as cooling air for turbine components, and the fuel may be a fuel gas, i.e. combustible gas, as mentioned, for example, in column 3, line 16. Fujioka's system also includes further heat exchanger 22, which transfers an additional quantity of heat from the cooling air. The amount of additional heat transferred is variable because of the presence of a valve (unnumbered) in the fuel flow loop on the left. Operation of this valve will vary the amount of fuel passing through heat exchanger 21, which will necessarily cause a variation in the in the temperature of the compressed air that exits unit 21, which in turn, will cause a variation in the heat transferred within further heat exchanger 22.

With regard to new claims 31 and 33, it is also pointed out that the additional quantity of heat transferred from the cooling air in heat exchanger 22 is transferred to a liquid, i.e. water.

### ***Arguments***

Applicants' arguments with respect to the prior art have been considered but are not effective in overcoming the present rejection.

Applicants argue that Fujioka does not disclose a further heat exchanger and/or provide for variable extraction of additional heat as required by the amended claims. It is maintained however that this line of argument is not applicable to the system shown in Fujioka's Figure 3, which is now discussed in the §102 rejection above. As pointed out in this rejection, Fujioka's heat exchanger 22 corresponds to the newly claimed further heat exchanger, and heat exchanger 22 will in fact operate to vary the amount of heat extracted.

### ***Allowable Subject Matter***

Claim 28 contains allowable subject matter but is objected to as depending from

a rejected parent claim. If rewritten in independent form and amended to overcome the § 1.75(a) abjection above, claim 28 will be allowed.

***Final Rejection***

***THIS ACTION IS MADE FINAL.*** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.



L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
571-273-8300 FAX  
March 12, 2007

Art Unit: 3746

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Ehud Gartenberg, can be reached at 571-272-4828.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).